

**REMARKS**

Claims 1-5, 7-17, and 19 remain in the application.

Claim 19 is rejected for anticipation over Nohara. The rejection is respectfully traversed for the following reasons.

Claim 19 recites a sabotage prevention system including “a means for self-synchronously and continuously scrambling” frames from an assembly means, subsequent to assembly of the frames, “in which said self-synchronous scrambling means includes control inputs with timing data that are synchronous to at least one overhead bit in the frame to disable said scrambling means, whereby the scrambling operation becomes modifiable.”

The contention is that the claimed subject matter is taught in Nohara at column 1, lines 32-44 and in FIG. 1. What Nohara describes at column 1, lines 32-44 and illustrates in FIG. 1 is a prior art scramble device with a scramble pattern generator 13 that produces a random signal pattern in response to the order of control frames from a data interface. The randomness of the signal pattern is based upon “a predetermined polynomial and upon an initial data pattern”. However, Nohara’s description of this prior art scramble device omits “at least one overhead bit in the frame to disable” the scramble pattern device or the scramble pattern generator 13. In the Office Action of 11/18/2004, the contention is that Nohara’s disclosure at column 3, lines 30, 31 of altering an interleaver pattern “would lead one of ordinary skill in the art” to conclude that “there are overhead bits present that would inform the descrambler about these changes since it is essential that these overhead bits, or control bits dictate a specific operation that is to be performed by the circuitry, namely the scramble pattern device”.

In fact, what Nohara teaches at column 3, lines 30 et seq. does not establish that the “at least one overhead bit in the frame to disable” the scramble pattern device is inherently in the thing described by Nohara, for two reasons. First, the thing described at column 1, lines 32-44 and illustrated in FIG. 1 is a prior art scramble device that Nohara explicitly disfavors. The thing described at

column 3, lines 30, et seq. is Nohara's invention, a different and distinct data scramble transmission system from the disfavored prior art scramble device of FIG. 1. How can Nohara's discussion of his own invention establish that the "at least one overhead bit in the frame to disable" the scramble pattern device is necessarily in the disfavored prior art scramble device? Second, at column 3, lines 30, 31 Nohara describes how an interleaver pattern can be changed in response to a transmission link error pattern, not an overhead bit. Anyway, the interleaver pattern applies to the data portion (column 3, line 23), not to "the frames from said assembly means" as in claim 19.

Thus the overhead bit is omitted by Nohara and Nohara therefore does not anticipate claim 19. If the limitation is still considered to be inherent, the examiner must introduce evidence establishing that the omitted limitation is necessarily in the prior art data scramble transmission system or the invention described by Nohara. The reasoning in the file is not extrinsic evidence; it is speculation; and, it reads Nohara in light of the specification in this application. Without extrinsic evidence to support the conclusion, the rejection must be withdrawn.

Claims 1-5, 7, 9, 10, and 12-16 are rejected for obviousness over Nohara in view of US Patent 4,979,188 ("Kotzin"). The rejection is traversed for the following reasons.

Rejection of a claim for obviousness over a combination of references requires, *prima facie*, a suggestion in the prior art to combine the references, a reasonable expectation of success, and the inclusion of all elements of the claim in the combination. See MPEP 2142 et seq.

The examiner states, "Nohara is silent in disclosing of encrypting the overhead sections of a frame". The applicants disagree. In fact Nohara does mention scrambling frames in the discussion of the prior art scramble device shown in FIG. 1. However, it is manifest that scrambling frames is undesirable because "the transmission rate must be increased" by "an amount as much as the amount of the added control frame information". See Nohara at column 1, lines 46-53. In other words, Nohara teaches away from the proposed

combination because of the bandwidth toll exacted by encrypting overhead sections of a frame. The prior art therefore does not suggest the proposed combination.

Nohara invented a data scramble transmission system “whereby it is not necessary to change the data transmission rate”. See Nohara at column 2, lines 34-36. As already pointed out, Nohara teaches explicitly that scrambling control frames undesirably increases the transmission rate. Accordingly, Nohara presents a design in which “bit stream positions of data in only a data portion in each transmission frame” are scrambled. See Nohara at column 4, lines 55-60. Referring to FIG. 4 in the description at column 5, lines 38-60, Nohara deliberately stores framing bits *b* in a memory 43 so that “[o]nly the data portion *c* in the detected frame are applied to the interleaver”. Then, when the data portion of a frame is scrambled, “at the frame combiner 46, the framing bits *b* temporarily stored in the memory 43 are added to the scrambled data to reconstitute the transmission frame”. See Nohara at column 6, lines 34-38. Nohara discloses a complete invention that intentionally avoids scrambling overhead information. Altering Nohara’s data scramble system to incorporate “selectively encrypting the overhead section of a frame” would render the system unfit for and unsuccessful in limiting the system’s transmission rate. There is a reasonable basis therefore to conclude that the combination would not be successful.

Accordingly, the combination of Nohara with Kotzin (or any reference teaching encryption of the overhead section of a frame) fails to satisfy the requirements for *prima facie* obviousness with respect to claims 1-5, 7, 9, 10, and 12-16, and the rejection should be withdrawn.

Claims 8, 11, and 17 are rejected for obviousness over Nohara in view of Kotzin in further view of US Patent 5,303,303 (“White”). In the detailed explanation of this rejection, “Kim” is discussed but not identified. The applicant presumes that “Kim” is in fact US Patent 5,442,703 and reserves the right to amend these remarks if that assumption is incorrect.

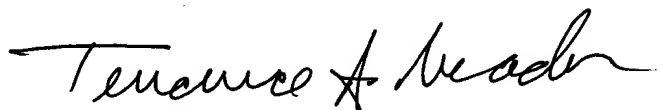
The rejection is traversed for the reasons given above in respect of the combination of Nohara with Kotzin. Further, to the extent White is cited to teach

encryption of data and overhead, the rejection is traversed because Nohara explicitly teaches away from scrambling control data and because of the probable lack of success in modifying Nohara to accommodate encrypting overhead and data. Further, White at column 1, lines 43-45 does not teach "that the header and trailer (overhead) may be encrypted separately from the information-carrying portion". Instead, White explains that a first packet comprising header, information-carrying and trailer portions may itself be encrypted and then enclosed in a header and trailer portion to form a second packet. White does not teach or suggest that the elements of the first packet may be encrypted separately or that the second packet, or its elements, are encrypted separately from the first packet. Kim teaches nothing more than the use of different encryption keys to establish groups of communication units called talkgroups. See Kim at column 1, lines 35-40.

Accordingly, the combination of Nohara with Kotzin, White and Kim fails to satisfy the requirements for *prima facie* obviousness with respect to claims 8, 11, and 17 and the rejection should be withdrawn.

In view of these remarks, it is submitted that the claims of this application define subject matter that is patentable over the art of record, early notice of which is earnestly requested.

Respectfully submitted,



TERRANCE A. MEADOR  
Reg. No. 30, 298

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INCAPLAW  
1050 Rosecrans Street, Suite K  
San Diego, CA. 92106

619-222-2531 (Office)      619-222-2327 (FAX)